OCCUPATIONAL INJURY

DESCRIPTION:

Any wound or damage to the body resulting from an event in the work environment.

Occupational injury fatalities are those injuries that occur during the course of employment in Washington State that result in death.

Non-fatal occupational injuries are those injuries that result in lost work time of greater than three days, total or partial disability, or kept-on-salary by employers in the Washington Workers'

Washington State Goal Statement

To decrease deaths and hospitalizations due to occupational injury

National Healthy People 2010 Objectives

- Reduce work-related injury deaths from 4.5 deaths per 100,000 full-time workers age 16 years or older in 1998 to 3.2 deaths per 100,000 full-time workers age 16 years or older in 2010
- Reduce work-related injuries resulting in medical treatment, lost time from work, or restricted work activity from 6.2 work-related injuries per 100 full-time workers age 16 years and older in 1998 to 4.3 work-related injuries per 100 full-time workers age 16 years and older in 2010

Statement of the Problem in Washington State

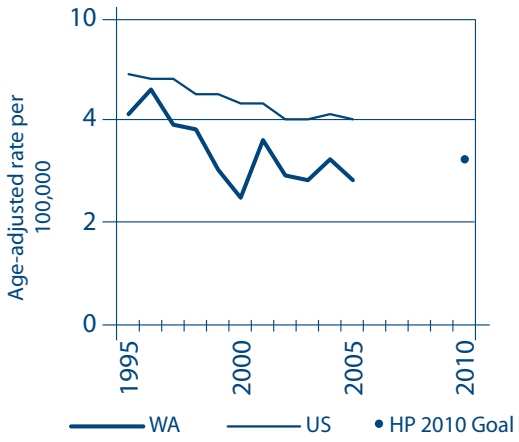
Washington State Data

Washington State has lower occupational injury fatality rates than the nation. In 2004, the national occupational injury fatality rate was 4.1 per 100,000 workers. The Washington State injury fatality rate was 3.4 per 100,000 workers. The state's fatality rate fluctuates due to the low number of deaths each year.

Data for non-fatal occupational injury rates are not comparable between states or to a national average.[1, 2] The most reliable and accurate estimates of Washington's non-fatal occupational injury rates come from the state-run Washington Workers' Compensation System.

The workers' compensation system accepts over 170,000 injury claims per year. Roughly one-quarter

Fatal Occupational Injuries
Washington State & United States
Bureau of Labor Statistics 1995-2004



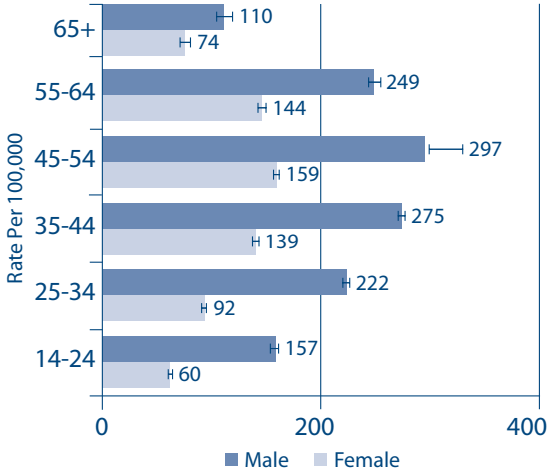
to one-third of all claims result in wage replacement payments, partial or total permanent disability awards, or modified work duties with the employee kept on salary by their employer. These are called 'compensable' claims.[3]

In 2000, the number of compensable claims from occupational injury was 49,434. In 2004, the number fell to 40,377. Likewise, in 2004, the compensable claims incidence rate fell from 2,360 to 1,950 claims per 100,000 FTE employees.

Age and Gender

From 2001-2003, males had higher compensable claims rates for all age groups. Injury rates for males and females between ages 45-54 exceed those of both younger and older workers. Injury rates per 100,000 workers do not differentiate part-time from full-time workers. Consequently, differences in employment patterns across age groups may influence rate differences.

Non-fatal Occupational Injuries
Age and Gender
Washington State Workers' Compensation Database, 2001-2003



Risk and Protective Factors
Industry Distribution

Major industrial sectors at high risk for occupational fatalities in Washington State for the year 2004 include:

- Agriculture, forestry and fishing (18 deaths per 100,000 workers).
- Transportation and public utilities (10 deaths per 100,000 workers).
- Construction (9 deaths per 100,000 workers).

From 2003-2004, transportation incidents caused 36% of Washington State's occupational fatalities. Falls (16% of deaths) and being struck by an object (14% of deaths) were the second and third leading causes of occupational fatalities.

Risk factors for occupational fatality vary by industry.

In transportation and public utilities:

- 42% of the deaths were due to highway motor vehicle crashes.
- 31% of the deaths were due to contact with objects or equipment.

In construction:

- 44% of the deaths were due to falls.
- 25% of the deaths were due to contact with objects and equipment.

In agriculture, 60% of the deaths resulted from transportation incidents.

Non-fatal occupational injury rates differ by industry sector. Compensable claims rates are highest in the transportation and warehousing industry sector (4,490 per 100,000 FTE employees in 2004). Construction has the greatest number of claims – 5,690 – of all industry sectors. It has a high claims rate, 4,310 per 100,000 FTE employees. Compensable claims rates in other industry sectors include:

- Public administration (2,750 per 100,000 FTE employees).
- Agriculture, forestry, and fishing (2,520 per 100,000 FTE employees).
- Manufacturing (2,080 per 100,000 FTE employees).

Injury types also vary by industry and reflect the distribution of physical hazards in the workplace.[4]

Recommended Strategies

Evidence-Based Strategies

Regulatory enforcement inspections reduce occupational injury rates

Regulatory enforcement inspections are linked with a drop in some compensable workers' compensation claims rates. This is true for fixed-site employers in a single business location with more than 10 employees. Claims rates for employers with regulatory enforcement activities by Washington State's Occupational Safety and Health Administration's (OSHA) Plan declined 22.5% in fixed site industries compared to 7% among employers with no state OSHA activity.[5]

Promising or Experimental Strategies

Focus enforcement and consultation resources

The Washington State Department of Labor and Industries (L&I) focuses prevention resources on high-risk employers and industries. Ongoing L&I initiatives and programs to improve compliance with regulations include:

- Improving scheduling protocols to focus state enforcement and consultation on high-risk employers and industries (for example, construction, transportation, and manufacturing).
- Revision of the Washington State occupational safety and health rules to increase employers' and workers' understanding.
- Identifying policy gaps in workplace safety and health regulation.[4]
- Translating injury prevention research into practice for:
  - At risk populations, such as, younger and older workers, through training and outreach to employers, workers, and safety and health professionals.
  - Workplace policies that may affect occupational injury[6] (for example, drug-free workplace programs).

Expanded cooperative programs

Workers, worker groups, employers, and employer associations participate in workplace safety. Their active engagement leverages existing state resources. Improvements in worker safety may occur through a variety of voluntary activities:

- Recognition programs for employers with exemplary safety records, such as the voluntary protection and small business recognition programs.
- Partnerships with industry associations to foster safe workplaces through training, education, and the sharing and development of innovative solutions.
- Financial incentives for primary injury prevention through the workers' compensation system and the retrospective rating program.

Develop social marketing campaigns for occupational safety and health

Occupational safety and health does not depend solely on the regulatory activities of the state and federal governments. Occupational safety and health need to be integrated into general public health activities. A safe workplace depends on the active involvement of public health agencies and the general public. We need campaigns to educate the public about the burden of occupational injury and fatalities. This will increase greater awareness and investment in occupational safety and health. There is an opportunity to incorporate occupational injury prevention into existing national prevention programs on violence, drug and alcohol use, and on motor vehicle injury. The most effective way to reduce injury and fatality rates over time may be to integrate safety into the workplace. This would adopt a systems approach with many strategies for multiple types of injury prevention.

For More Information

Washington State

Setting Up an Occupational Safety and Health Program, Washington State Department of Labor and Industries: Steps to a Safe Workplace
www.lni.wa.gov/Safety/Basics/Steps/default.asp

Occupational Safety and Health Rules for Workplaces Washington State Department of Labor and Industries: Core Rules
www.lni.wa.gov/wisha/rules/corerules/default.htm

National

Injury Prevention in Construction; Center to Protect Workers Rights (CPWR)
www.cpwr.org

NIOSH Traumatic Occupational Injury
www.cdc.gov/niosh/injury/default.html

Occupational Injury Prevention; American Society of Safety Engineers
www.asse.org

Endnotes

[1] Azaroff, L.S., Levenstein, C. & Wegman, D.H. (2002). Occupational injury and illness surveillance: conceptual filters explain underreporting. *American Journal of Public Health*, 92(9), 1421-1429.

[2] Rosenman, K.D., Kalush, A., Reilly, M.J., Gardiner, J.C., Reeves M. & Luo, Z. (2006 Apr). How much work-related injury and illness is missed by the current national surveillance system? *Journal of Occupational Environmental Medicine*, 48(4), 357-365.

[3] The Washington workers' compensation system identifies three types of claims: 1. Rejected claims in which the injury or illness does not qualify for workers' compensation benefits; 2. Medical only claims which result only in medical treatment; and 3. Compensable claims. Data were obtained from the Washington workers' compensation system data warehouse on 10/11/2006. Over time workers' compensation claims may convert from medical only to compensable thus influencing the reported number of compensable claims during a reported period.

[4] Bonauto, D.K., Silverstein, B.A., Adams, D. & Foley, M. (2006). Prioritizing industries for occupational injury and illness prevention and research, Washington State workers' compensation claims, 1999-2003. *Journal of Occupational, Environmental Medicine*, 48(8), 840-851.

[5] Baggs, J., Silverstein, B. & Foley, M. (2002). Workplace health and safety regulations: impact of enforcement and consultation on workers' compensation claims rates in Washington State. *American Journal Industrial Medicine*, 43, 483-494.

[6] Wickizer, T.M., Kopjar, B., Franklin, G. & Joesch, J. (2004). Do drug-free workplace programs prevent occupational injuries? Evidence from Washington State. *Health Services Research*, 39(1), 91-110.